



Fuel Cell Electric Bus Commercialization Consortium (FCEBCC) Project

In order to realize near- and long-term commercialization goals and to establish fuel cell electric buses as an industry standard, the unit cost of the buses will have to decrease significantly and more transit agencies will have to deploy these vehicles in revenue service. The FCEBCC is addressing these challenges by building 20 fuel cell electric buses through an industry collaboration between New Flyer and Ballard Power Systems for deployment at AC Transit and OCTA. Messer, LLC, Trillium, and Air Products are providing the reliable hydrogen fuel supply and fueling technology capable of meeting the demands of the transit industry.



25th Anniversary
1993-2018

CTE is relying on its experience with research, development, demonstration, and deployment projects that has helped bridge the gap to commercialization for zero-emission buses, to lead the team, which also includes Transworld Associates and Fiedler Group. Two Air Districts, BAAQMD and SCAQMD, are also supporting the project.

Dates: 02/01/2017 – Summer 2020
Grantee: Center for Transportation and the Environment
Partners: AC Transit, OCTA, New Flyer, Ballard Power Systems, Messer, Trillium, Air Products, TWA, Fiedler Group, BAAQMD, and SCAQMD

Grant Amount:
CARB Contribution: \$22,347,502
Matching Funds: \$23,152,357
Project Total: \$45,499,859



Vehicles/Equipment Funded

Funding from CARB, BAAQMD, SCAQMD, AC Transit, and OCTA supports the build and deployment of the buses, fueling infrastructure, facility upgrades at OCTA to safely work on hydrogen-fueled buses, and project management.

- 10 New Flyer fuel cell electric buses for AC Transit.
- 10 New Flyer fuel cell electric buses for OCTA.

Infrastructure to support the project includes installation of a new station and upgrades to an existing station.

- Messer, LLC – upgrades to AC Transit’s Emeryville and Oakland hydrogen fueling stations for faster and more efficient fueling.
- Trillium and Air Products – design and installation of new hydrogen station at OCTA’s Santa Ana Base.
- Fiedler Group – lead on upgrade of OCTA’s Santa Ana Base to support service and maintenance of fuel cell buses and hydrogen fueling.

Lessons Learned

- Schedule sufficient time to work through vehicle specifications and execute procurement contracts
- Acceptance testing by transit agencies for a new technology bus takes months, not weeks
- Design, specifications, and timing of vehicles, fueling stations, and facility upgrades requires close coordination

Status Updates

- OCTA Station capable of fueling 50 buses (1,750 kg/day capacity) to be commissioned in May 2019
- AC Transit Station capable of fueling 30 buses (1,050 kg/day capacity) to be commissioned in December 2019
- 1st buses delivered and in acceptance testing; all buses scheduled for delivery by May 2019; deployed in service June 2019

